To: "Steve Chen" <steve@youtube.com>
From: "David G King" [redacted]
Cc: "shashis@google.com" <shashis@google.com>
Bcc:
Sent Date: 2007-04-27 01:16:03 CST
Subject: Re: Weekly Updates

It seems like preparing for the Thursday monetization meeting should get the job done then. Just in case you want a deeper level of status, I prepared a long form version for Eric yesterday - see attached.

dk

Steve Chen wrote:
> Yup, this sounds good. Let's combine the two, as well as GAM and
> other monetization-related projects.
>
> -s
>
> On Apr 25, 2007, at Apr 25,8:58 AM, Shashi Seth wrote:
>
>> How about we create a weekly update that includes monetization and
>> CYC efforts combined, and circulate it to a larger group? If yes, we
>> will have the first one ready this Thursday after the weekly
>> monetization team meeting.
>>
>> Shashi
>>
>> On 4/25/07, *David G King* [redacted]
>> <[redacted]> wrote:
>>
>> Got it. I'm a little hampered in what I blast out in update
>> emails by
>> the sensitivity of the communication plan surrounding CYC, but
>> I'll say
>> what I can. I am a team of one so don't be surprised if my updates
>> don't list as many items as those from Maryrose and Hunter. I don't
>> want to be the one that tarnishes the YT reputation out there ;-)
>>
>> dk
>>
>> Steve Chen wrote:
>> > Shashi & Dave --
>> >
>> > Sorry, one more request for you guys. Can you guys work to
>> send out
>> > an update email in a similar fashion as what Hunter & Maryrose are
>> > sending out to the broader YT management team, the product
>> team, and
>> > anyone else you guys feel should be included? I have been
>> receiving
>> > complaints that we're not communicative enough as a technology
>> > organization, especially when the focal point of YouTube is really
>> > centered around product & engineering. It'll help to dissipate
>> these
>> > concerns and ensure that people don't proactively start taking on
>> > initiatives within your areas of control because they're not aware

>> > that, already, things are already being within these areas?
>> >
>> > -s
>>
>>
>

Attachments:

Eric GPS.doc

Executive Summary

Claim Your Content is a broad platform of systems and tools for managing copyright claims from media companies, including record labels, music publishers, TV networks, and movie studios. The goal of CYC is to give copyright owners choices about whether and how their content is used on YT. This platform is up and running, though a great deal of work remains to extend the functionality of the platform, and to drive partner adoption. As we stabilize the platform, our goal is to make it an indispensable tool for the world's media companies.

The CYC platform includes the following elements

- Copyright database to manage policy information
- Web tools allowing partners to manage their assets and claims, powered by advanced text search
- Audio and video fingerprinting technologies that help us link up that policy information to user videos

This first section offers a brief snapshot of work underway on the platform.

CYC Rights Backend Database

- Next step is to broaden data and asset dialog with partners, as implementing deals requires explicit license information
- Extend backend to manage data from music partners, with emphasis on data matching to combine music label and publisher synch rights into YT licenses

CYC Tool – metadata search tool that facilitates "claiming"

- Tool is stable and deployed to 5 partners (BBC, CBS, NBA, NHL, DMGI)
- Not yet appropriate for music partners because of rights complexity
- Slow uptake from partners due to: 1) level of work required; 2) legal complexities of licensing YT clips (e.g. multiple rights holders, accepting modifications to their content, etc). We are looking at alternative incentives for using the tool, such as driving promotional opportunities instead of revenue sharing where the partner is prohibited from monetizing content

Audible Magic - Audio Fingerprinting

- Platform went live 2/14
- Part of a legacy relationship with YT. May be replaced with Google fingerprinting technology in the future.
- We lookup against custom FP database for sound recordings where we have licenses in place from label and publisher
- We manage policy database, and use AM solely for identification services

Google Technology - Video Fingerprinting

- Primary focus of team, promising efficiency in creating content claims
- Partner trials in test environment are expected to begin in August
- Not commercially ready until mid-September
- Plan to syndicate this service once it stabilizes, offering content owners more impact from their collaboration

Timeline
4/25 – CYC data support for select music partners, need to scale partner types from here
5/16 – CYC tool improvements; support for "promotion" claim type
6/13 – Google Video FP major service components in place, but still missing partner management functions; CYC tool ready for music partners
7/18 – GV FP ready for first sandbox testing partners, and limited production trial with one friendly partner
8/15 – GV FP open sandbox to many testing partners, and roll out production trial to select partners
9/13 – GV FP commercial release
Q4 – Next phase of CYC as open service

Detailed Notes
In case you want to drill down on any of the above, I've provided more details below.

Google Video Fingerprinting

- The Google search team has been working on video fingerprinting for the last few years. This was the most powerful method to automate the identification of copyrighted material in user uploaded video, allowing for mass creation of claims. Audio fingerprinting, while useful, is less reliable for making business decisions.
- The YT release of Google's FP is the maiden voyage for the platform, and the technical challenge is significant with no notable successes by other companies in this space to date. While we believe in what our team has developed, it will require a significant testing period to tune the underlying algorithm and business logic, thus the September release date.
- Fingerprinting technology only serves to identify matches between two pieces of content, but it is only useful in conjunction with a policy database that tells you what to do with that match information. Furthermore, the platform is powered by reference material (video and audio files) associated with those policies that partners will have to provide. Audible Magic has already accumulated over 5 million references, making them a useful partner beyond their technology. That's where deals, partner management, and the general CYC framework come into play.
- The same Google platform also supports audio fingerprinting but that work is lagging the video aspects by 3 to 6 months.

Audible Magic Audio Fingerprinting

- Match results from the AM platform are highly accurate, though we don't have any data on how often they fail to deliver a match when they should (false negatives are hard to measure). We have built up an audio reference library with AM of some 20,000 fingerprints, and we are doing lookups for all of our 200,000 daily video uploads. The reference library is primarily made up of fingerprints supplied by AM, based on a list of fully licensed tracks that we provide. We are also actively fingerprinting all premium video uploads (partners), as well as claimed UGC upon partner request.
- Our current solution with AM is severely constrained, with the match scan covering only the first 27 seconds of the reference, and the first 60 seconds of the lookup file, in search of a 20 second overlap. We asked AM for two upgrades to the service provided. First, for the music reference FPs they provide, we wanted to do complete scans. Second, we wanted to push up long-form references (TV shows, 30-60 minutes in length) into the lookup database, and scan them in their entirety. AM's response was a 20x price increase to $5M per year. We decided to invest this money on in-house development instead.

CYC for Music Partners

- Music copyright law makes CYC for music partners significantly more complex than CYC for TV networks and movie studios. More specifically, we must obtain synchronization rights for use of copyrighted music in user uploads, requiring us to contract with music labels for the sound recording component of that license, and with music publishers for the composition component of that license. To further complicate matters, some 40% of compositions have split ownership between more than one publisher. This means that we must map together user uploaded videos with license information from labels, as well as any number of licenses from publishers, and we have to display this complexity in the tool UI. So far, we have begun backend data mapping with our more cooperative partners.
- We plan to redesign the CYC UI to support the complexities of music licensing information in our mid-June release. For example, when a music label comes to make a UGC claim, we need to make it clear to them if we have a corresponding composition license in place. When we don't have the corresponding license, their rev share claim will actually result in a takedown.

CYC Adoption Plan

- TV networks and movie studios have voiced concern about generating revenue on YT as their ability to license clips for revenue is constrained by agreements with actor, worker, and producer guilds. As most videos will only generate micro payments, there is not enough incentive for them to take on this work. We plan to mitigate this impediment by offering

promotional opportunities for license clearance instead of cash. As their claims accumulate page views, we will credit them with ad inventory, or other promotional opportunities.

- YT is pioneering an entirely new business model which does not map directly to anything media companies have ever done in the past. In particular, we are asking for license clearances they have never granted in bulk before. To keep their interest in making this investment, it is important that we ramp their revenue participation as quickly as possible while interest is high.
- Making our partnerships work efficiently requires deep cooperation, with them providing complete data files of everything we are licensing from them, along with actual video and music files to power fingerprinting services (eventually). This means, once a partner is signed, our sales efforts only increase as we work to describe our systems, and how we can best work together.

PR/Marketing

- We have held back on sharing the entire story of what we are doing with the press up until now for a few reasons. We wanted high confidence launch dates that are not too far in the future. We are concerned about the impact on the user community, and want to delay that negative impact as long as possible. Our product vision continues to evolve as we work on deploying the system, and we don't want to hamper that flexibility by already creating public expectations.
- We don't want Audible Magic to know what we are doing because we are somewhat reliant on them until we launch our own solutions, and we don't want them to poison the waters with our media partners. It is important to communicate carefully and accurately and not to over promise. We want a clear and comprehensive picture of how exactly the program will be structured before communicating too much.

CYC Phase 2

- As soon as the core CYC platform has stabilized at the end of Q3, we plan to open it up as a publicly accessible system to power identification and licensing services for any website that requires this functionality. This will provide incentive to copyright holders to use Google as the standard reference for their copyrights on the internet, allowing us to organize a large corpus of the world's information.

CYC is a broad platform including many initiatives with product, engineering, BD, and legal implications. The team would like the opportunity to present this information in person, with the major stakeholders in the room, as this status report only scratches the surface.